

IN THE CLAIMS

1-48 (Canceled)

49. (Currently Amended) A composition suitable for inducing an immune response to anthrax in a subject when administered to a mucosal surface of the subject, comprising ~~two or more different isolated~~ at least one anthrax antigen[s] and at least one mucosal adjuvant in ~~amounts suitable for inducing an immune response to anthrax in the subject~~ combination with a mucosal administration device, wherein the immune response can ameliorate or prevent at least one symptom of anthrax disease.

50. (Currently Amended) The composition of claim 49, wherein the ~~two or more different anthrax antigens are~~ at least one anthrax antigen is selected from the group consisting of non-vegetative anthrax spore antigens and vegetative anthrax bacterial antigens.

51. (Currently Amended) The composition of claim 50, wherein the ~~two or more different anthrax antigens are~~ at least one anthrax antigen is a vegetative anthrax bacterial antigen[s] selected from the group consisting of cell wall antigens, capsule antigens and secreted antigens.

52. (Currently Amended) The composition of claim 51, wherein the ~~two or more different~~ at least one vegetative anthrax bacterial antigen[s] ~~are~~ is an anthrax peptide[s] selected from the group consisting of protective antigen (PA), lethal factor (LF), edema factor (EF), poly(γ -D-glutamic acid) (PGA) and immunogenic fragments thereof.

53. (Currently Amended) The composition of claim 52, wherein ~~the at least one of the two or more~~ the at least one anthrax peptide[s] is PA or an immunogenic fragment thereof ~~and one is PGA or an immunogenic fragment thereof~~.

54. (Currently Amended) The composition of claim 53, wherein at least some of the PA peptide is conjugated to the PGA peptide.

55. (Previously Presented) The composition of claim 54, wherein the PGA peptide is synthetic.

56. (Previously Presented) The composition of claim 55, wherein the PGA peptide is a 10mer of poly(γ -D-glutamic acid).

57. (Previously Presented) The composition of claim 49, wherein the at least one mucosal adjuvant is selected from the group consisting of monophosphoryl lipid A (MPL), trehalose dicorynomycolate (TDM), signaling transducer receptor of LPS, chitosan and other positively charged polysaccharides and agonists of toll-like receptors.

58. (Previously Presented) The composition of claim 57, wherein the composition comprises two or more mucosal adjuvants.

59. (Previously Presented) The composition of claim 58, wherein one of the two or more adjuvants is chitosan and one is MPL.

60. (Previously Presented) The composition of claim 49, wherein the composition is formulated as a dry powder.

61. (Previously Presented) The dry powder composition of claim 60 in combination with one or more devices for administering one or more doses of said composition.

62. (Previously Presented) The dry powder composition of claim 61, wherein said one or more doses are unit doses.

63. (Previously Presented) The dry powder composition of claim 61, wherein the device is a single-use nasal administration device.

64. (Previously Presented) The composition of claim 49, wherein the immune response comprises a primary immune response.

65. (Previously Presented) The composition of claim 49, wherein the immune response comprises a secondary immune response.

66. (Previously Presented) The composition of claim 49, wherein the immune response comprises eliciting antigen-specific serum IgG.

67. (Previously Presented) The composition of claim 49, wherein the immune response comprises eliciting antigen-specific secretory IgA.

68. (Previously Presented) A method of inducing an immune response to anthrax in a subject, comprising administering to a mucosal surface of the subject an effective amount of the composition of claim 49.

69. (Previously Presented) The method of claim 68, wherein replication of anthrax in the subject is inhibited.

70. (Previously Presented) The method of claim 68, wherein anthrax exotoxin in the subject is neutralized.

71. (Previously Presented) The method of claim 68, wherein the immune response is a protective immune response.

72. (Previously Presented) The method of claim 68, wherein the mucosal surface is selected from the group consisting of a nasal mucosal surface and an oral mucosal surface.

73. (Previously Presented) The method of claim 68, wherein the subject has not been exposed to anthrax.

74. (Previously Presented) The method of claim 68, wherein the subject is infected with anthrax.

75. (Previously Presented) The method of claim 68, wherein the subject has been exposed to anthrax.

76. (Previously Presented) The method of claim 75, wherein the subject does not display visible signs of anorexia, lethargy and/or death as a result of exposure to anthrax.

77. (Previously Presented) The method of claim 76, wherein the subject does not display visible signs of anorexia, lethargy and/or death up to 2 weeks after anthrax exposure.